



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**912096**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0092873</b>	GFL0092859	GFL0085608
Sample Date		Client Info		<b>04 Jan 2024</b>	04 Oct 2023	11 Jul 2023
Machine Age	hrs	Client Info		<b>3436</b>	2917	2344
Oil Age	hrs	Client Info		<b>519</b>	573	602
Filter Age	hrs	Client Info		<b>519</b>	573	602
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>15</b>	16	14
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>4</b>	1	2
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>4</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

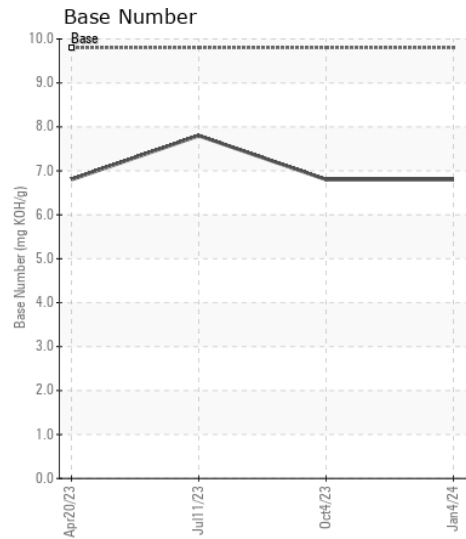
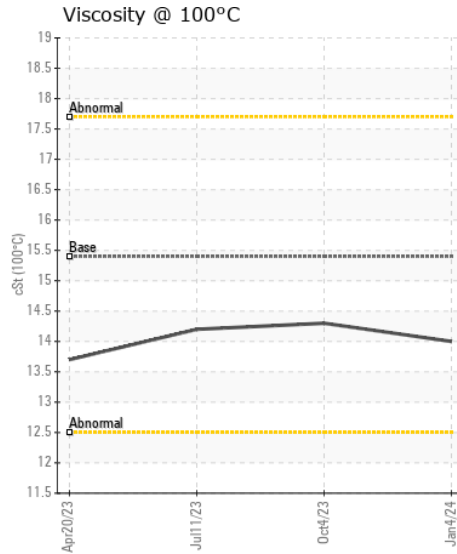
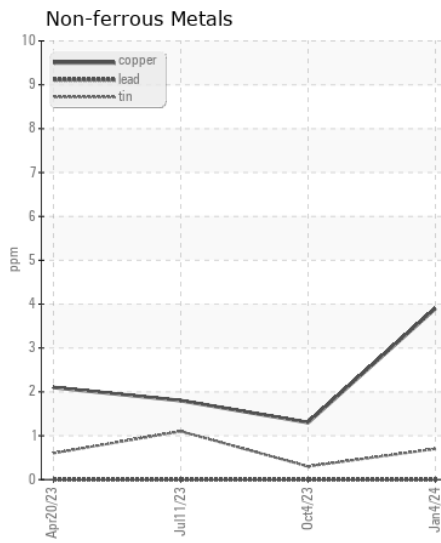
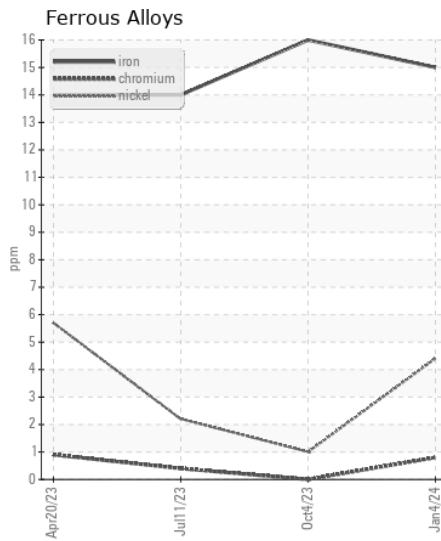
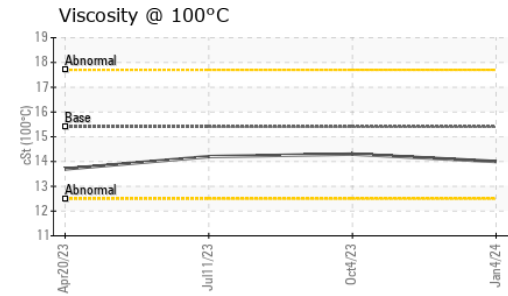
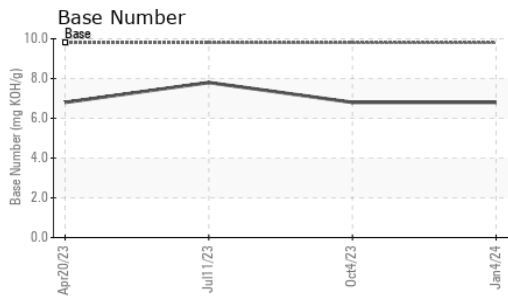
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.7</b>	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.7</b>	9.1	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.3</b>	20.8	20.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	7	3
Boron	ppm	ASTM D5185m	0	<b>9</b>	4	6
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	58	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>961</b>	971	867
Calcium	ppm	ASTM D5185m	1070	<b>1137</b>	1082	1121
Phosphorus	ppm	ASTM D5185m	1150	<b>1024</b>	943	950
Zinc	ppm	ASTM D5185m	1270	<b>1274</b>	1229	1193
Sulfur	ppm	ASTM D5185m	2060	<b>2880</b>	2613	3010
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.8</b>	17.1	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.8</b>	6.8	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	14.3	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092873 **Received** : 16 Jan 2024  
**Lab Number** : 06061638 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10833020 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 411 - Kingsford HC**  
 1001 E Blvd  
 Kingsford, MI  
 US 49802  
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: